

Metadata for Devils Tower National Monument, Field Plots Data Base for Vegetation Mapping

Identification_Information:

Citation:

Citation_Information:

Originator: U.S. Geologic Survey Department of the Interior

Publication_Date: 19980310

Title:

Devils Tower National Monument, Field Plots Data Base for Vegetation Mapping

Geospatial_Data_Presentation_Form: Database

Series_Information:

Series_Name: USGS-NPS Vegetation Mapping Program

Issue_Identification: Devils Tower National Monument

Publication_Information:

Publication_Place: Denver, CO

Publisher:

USGS, Biological Resource Division, Center for Biological Informatics

Other_Citation_Details:

Created by U.S. Bureau Of Reclamation under contract to the USGS-BRD-CBI.

Online_Linkage: <http://biology.usgs.gov/npsveg/deto/fielddata.html>

Description:

Abstract:

Vegetation field plots at Devils Tower NM were visited, described, and documented in a digital database. The database consists of 2 parts - (1) Physical Descriptive Data, and (2) Species Listings.

Purpose:

Provide National Parks with the necessary tools to effectively manage their natural resources. Plot data is collected and analyzed to develop a classification (using the Standardized National Vegetation Classification System) and description of vegetation types in preparation for photointerpretation and mapping of the monument's vegetation types.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 199608

Ending_Date: 199608

Currentness_Reference: Ground Condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: not applicable

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -104.75

East_Bounding_Coordinate: -104.63

North_Bounding_Coordinate: 44.63

South_Bounding_Coordinate: 44.5

Description_of_Geographic_Extent:

Devils Tower National Monument and

USGS-NPS Vegetation Mapping Program
Devils Tower National Monument

about a 2 mile environs around Monument Boundaries - Black Hills,
Wyoming, USA

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: National Park Service
Theme_Keyword: U.S. Geological Survey
Theme_Keyword: The Nature Conservancy
Theme_Keyword: U.S. Bureau of Reclamation
Theme_Keyword: Center for Biological Informatics
Theme_Keyword: land cover
Theme_Keyword: vegetation
Theme_Keyword: association

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Devils Tower National Monument
Place_Keyword: Black Hills
Place_Keyword: Wyoming
Place_Keyword: USA

Taxonomy:

Keywords/Taxon:

Taxonomic_Keyword_Thesaurus: None
Taxonomic_Keywords: plant communities

Taxonomic_Classification:

Taxon_Rank_Name: Kingdom
Taxon_Rank_Value: Plantae

Access_Constraints: None

Use_Constraints:

Any person using the information presented here should fully understand the data collection and compilation procedures, as described in these metadata, before beginning analyses. The burden for determining fitness for use lies entirely with the user. For purposes of publication or dissemination, citations or credit should be given to the U.S. Geological Survey and the National Park Service.

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization:

USGS Biological Resources Division, Center for Biological
Informatics

Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact_Address:

Address_Type: Physical Address

Address: USGS

Address: Biological Resources Division, CBI

Address: Building 810, Room 8000

City: Denver

State_or_Province: Colorado

Postal_Code: 80225-0046

Country: USA

Contact_Address:

Address_Type: Mailing Address

Address: USGS

Address: Biological Resources Division, CBI

Address: PO BOX 25046, DFC, MS302

City: Denver

State_or_Province: Colorado

USGS-NPS Vegetation Mapping Program

Devils Tower National Monument

Postal_Code: 80225-0046

Country: USA

Contact_Voice_Telephone: (303) 202-4220

Contact_Facsimile_Telephone: 303-202-4229

Contact_Facsimile_Telephone: 303-202-4219 (org)

Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Browse_Graphic:

Browse_Graphic_File_Name: <http://biology.usgs.gov/npsveg/deto/images/detoplot.gif>

Browse_Graphic_File_Description: 53 Kbyte, locations of vegetation plot samples; low resolution for web browsing.

Browse_Graphic_File_Type: GIF

Data_Set_Credit: BRD-USGS, U.S, BOR, TNC

Native_Data_Set_Environment: DB4

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Descriptive plot data were collected for 27 sites whose vegetation represents a full spectrum of alliance types present within Devils Tower National Monument and its immediate surroundings. Physical description - Attributes collected for each site include: a unique plot identification code, park name, quad name, UTM coordinates, plot survey date, surveyor's name, length, width, photo type, elevation, slope aspect, topographic position, landform, surface geology, Cowardin System category, surface material description, leaf phenology, leaf type, and physiognomy. Species - Individual species described at each of 27 plots is listed, one line per species, with the following information: Plot Identification Code, Species Name, Species Cover (0=trace, 1=< 1%, 2=1-5%, 3=5-25%, 4=25-50%, 5=50-75%, 6=75-100%), Plantcode (first 2 letters of genus+first 2 letters of spp.), and Plant Strata (T, S, H, v.s, and no entry).

Logical_Consistency_Report:

Entries for each of the listed attributes are in the form of consistent groupings of either textual or numerical descriptors as described under 2.1.1: attributes accuracy report. NOTE 1: The significance of numbers appended to some of the Plant Code is not known. NOTE 2: entries under Plant Strata were not clearly defined on the original field forms. It is assumed that T=tree, S=shrub, and H=herbaceous. It is also assumed that numbers represent canopy levels (starting with 1 as tallest), v.s. = very short. Plant strata entries in this database are not always consistent with these assumed labeling conventions.

Completeness_Report:

Descriptive entries for each of the 27 plots are complete for each of the applicable attributes listed in the database.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

X,Y UTM coordinates representing each of the 27 plots were collected by P-code PLGR (Precise Lightweight GPS Receiver) receivers, with an accuracy ranging from +/- 10 m. to +/- 30 m. based on 60 second averaging at each point.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report: Not applicable

Lineage:

Methodology:

Methodology_Type: Field

Methodology_Identifier:

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Methodology_Keyword_Thesaurus: None
Methodology_Keyword: sampling
Methodology_Keyword: releve
Methodology_Keyword: plot
Methodology_Description: Field sampling using releve plots
Source_Information:
Source_Citation:
Citation_Information:
Originator: USGS,BRD,Center for Biological Informatics
Publication_Date: 19960405
Title: Devils Tower National Monument Sampling and Classification
Geospatial_Data_Presentation_Form: report
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS, BRD, Center for Biological Informatics
Other_Citation_Details:
This report was generated by the Nature Conservancy under contract to the USGS, BRD, CBI.
Online_Linkage: <http://biology.usgs.gov/npsveg/deto/methods.pdf>
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 199510
Source_Currentness_Reference: Ground Condition
Source_Citation_Abbreviation: deto sample and classification
Source_Contribution: Report summarizing plot data collection effort
Source_Information:
Source_Citation:
Citation_Information:
Originator: US Dept of Interior
Originator: National Biological Survey(Now USGS/Biological Resources Division)
Originator: and National Park Service
Publication_Date: 199411
Title:
Standardized National Vegetation Classification System; protocol document for the USGS-NPS Vegetation Mapping Program (unpublished report)
Geospatial_Data_Presentation_Form: document
Edition: Final Draft
Series_Information:
Series_Name: USGS-NPS Vegetation Mapping Program
Issue_Identification: Protocol documents
Publication_Information:
Publication_Place: Denver, CO
Publisher: USGS/BRD/Center for Biological Informatics
Other_Citation_Details:
Report prepared under contract by The Nature Conservancy, 1815 N. Lynn Street, Arlington, Virginia 22209 and Environmental Systems Research Institute, 380 New York street, Redlands, California 92373
Online_Linkage: <http://biology.usgs.gov/npsveg/classification/index.html>
Type_of_Source_Media: Online
Source_Time_Period_of_Content:
Time_Period_Information:
Range_of_Dates/Times:
Beginning_Date: 199411

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Ending_Date: 2010

Source_Currentness_Reference: Publication Date and indefinitely

Source_Citation_Abbreviation: SNVCS protocol document

Source_Contribution:

This document describes and defines the vegetation classification system which is to be used for describing and mapping the vegetation at Devils Tower National Monument.

Source_Information:

Source_Citation:

Citation_Information:

Originator: Kenny Aerial Mapping Company, Phoenix, AZ

Publication_Date: 19930729

Title:

Aerial photography (CIR and true color) of Devils Tower National Monument

Geospatial_Data_Presentation_Form: photos

Publication_Information:

Publication_Place: Denver, CO

Publisher: USGS Center for Biological Informatics

Other_Citation_Details:

Aerial photography was taken at a scale of 1:24,000. Original media are in the form of positive transparencies. Photointerpretation was done on contact prints of the true color photos.

Online_Linkage: <http://biology.usgs.gov/npsveg/deto/photos.html>

Source_Scale_Denominator: 12000

Type_of_Source_Media: Contact paper prints of film transparencies

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19930729

Source_Currentness_Reference: Imagery date

Source_Citation_Abbreviation: deto Aerial Photos

Source_Contribution:

These aerial photographs were the basis for the photointerpretation process

Source_Information:

Source_Citation:

Citation_Information:

Originator: USGS, BRD, Center for Biological Informatics

Publication_Date: 19960405

Title: Devils Tower National Monument Vegetation Descriptions

Geospatial_Data_Presentation_Form: report

Series_Information:

Series_Name:

USGS-NPS Vegetation Mapping Program Park Vegetation Descriptions

Issue_Identification: Devils Tower National Monument

Publication_Information:

Publication_Place: Denver, CO

Publisher: USGS, BRD, Center for Biological Informatics

Other_Citation_Details:

This report was generated by the Nature Conservancy under contract to the USGS, BRD, CBI.

Online_Linkage:

Devils Tower National Monument Vegetation
<http://biology.usgs.gov/npsveg/deto/descript.pdf>

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Type_of_Source_Media: Online

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 19960405

Source_Currentness_Reference: Publication Date

Source_Citation_Abbreviation: deto Veg Descriptions

Source_Contribution:

This document describes and defines the vegetation classification system which is to be used for describing and mapping the vegetation at Devils Tower National Monument

Source_Information:

Source_Citation:

Citation_Information:

Originator:

United States Department of Interior, National Biological Survey (now USGS Biological Resources Division) and the National Park Service

Publication_Date: 199412

Title: Field Methods for Vegetation Mapping

Geospatial_Data_Presentation_Form: document

Publication_Information:

Publication_Place: Denver, CO

Publisher:

USGS, Biological Resources Division, Center for Biological Informatics

Other_Citation_Details:

This report was generated by the Nature Conservancy under contract to the USGS, BRD, CBI.

Online_Linkage: <http://biology.usgs.gov/npsveg/fieldmethods/index.html>

Type_of_Source_Media: Online

Source_Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 199412

Ending_Date: 2010

Source_Currentness_Reference: Publication Date and indefinitely

Source_Citation_Abbreviation: field methods protocol document

Source_Contribution:

This document defines the methods and protocols for field data collection to be used as part of the USGS-NPS Vegetation Mapping Program.

Process_Step:

Process_Description:

The following describes the tasks performed by The Nature Conservancy to produce descriptive data for 27 vegetation sampling plots in two separate database files. Physical description - The first of the two contains general descriptive information at each of the plots. Plot sites were selected by information obtained during a reconnaissance visit to the park in April of 1995, and by examining tone and textural patterns on the DETO AERIAL PHOTOGRAPHS. Site physical parameters, species and types were described at each site. The PLOT DATA database contains tabulations of site physical factors, listed under the ATTRIBUTE ACCURACY REPORT for each of the 27 plots. Plot data were manually recorded on field forms on-site, and subsequently keyed into the database files described herein. Information in the plot database was then used to develop the classification system and plant identification keys contained in the TNC DETO SAMPLING AND CLASSIFICATION REPORT. Species - The second of the two contains listing

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of individual species found in each plot, along with cover estimates and height (strata) delineations. The SPECIES LISTING database contains line entries for each species including the Plot Code, a unique numerical species code, full species name, Species Cover, Plant code, and Plant Strata delineation. See 2.1.1 (Accuracy Assessment Report) for explanations of these attributes. Plot data were manually recorded on field forms on-site, and subsequently keyed into the database files described herein. Information in the plot database was then used to develop the classification system and plant identification keys contained in the TNC DETO SAMPLING AND CLASSIFICATION REPORT.

Source_Used_Citation_Abbreviation: deto Aerial Photos

Source_Used_Citation_Abbreviation: SNVCS protocol document

Source_Used_Citation_Abbreviation: Field Methods for Vegetation Mapping

Process_Date: 19960405

Source_Produced_Citation_Abbreviation: deto sample and classification

Source_Produced_Citation_Abbreviation: deto Veg Descriptions

Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: The Nature Conservancy

Contact_Person: Dennis Grossman

Contact_Position: Chief Ecologist, The Nature Conservancy

Contact_Address:

Address_Type: Physical Address

Address: 1815 Lynn Street

City: Arlington

State_or_Province: VA

Postal_Code: 22209

Country: USA

Contact_Voice_Telephone: (703) 841-5305

Contact_Electronic_Mail_Address: dgrossman@tnc.org

Spatial_Data_Organization_Information:

Indirect_Spatial_Reference:

Devils Tower National Monument is in Crook County in northeast Wyoming and is part of the western most Black Hills. The monument lies 10 miles east of the Bear Lodge Mountains and 10 miles south west of the town of Hulett, Wyoming

Direct_Spatial_Reference_Method: Point

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Point

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 13

Transverse_Mercator:

Longitude_of_Central_Meridian: -105

Latitude_of_Projection_Origin: 0

False_Easting: 500000

False_Northing: 0

Scale_Factor_at_Central_Meridian: .9996

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Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:

Abscissa_Resolution: 1

Ordinate_Resolution: 1

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: Geodetic reference System 80

Semi-major_Axis: 6378137

Denominator_of_Flattening_Ratio: 297.257

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

Each of 27 vegetation mapping plot sites has attributes of species found. Physical description - General plot information is described by identification codes, locational information (including state, park name, and USGS 7 1/2' topographic quad name). Physical factors tabulated in the database include UTM_X, UTM_Y, UTM Zone, map projection, survey date, name of surveyors, plot length and width, type of photos used, plot elevation, slope aspect, topographic position, landform type, surface geology, Cowardin system descriptor, hydrology, rock size, surface material type, soil texture and drainage, leaf phenology, leaf type, and physiognomy. Species - (sp_code is a project specific code for each species found, species is the scientific name for that species, spcover is the species present and the percent cover for each species, plant code is the first two letters of the genus and first two letters of the species. If the code are not unique a number is added to make the code unique). This includes strata cover which is an average percent cover of that particular species, 1 = 0-10%, 2 = 10-25%, 3 = 25-60% and 4 = 60-100%, pstrata is the type of vegetation, T1 = emergent, T2 = canopy, T3 = sub-canopy, S1 = tall shrub, S2 = short shrub, H = herbaceous, N = non-vascular, V = vine/liana, and E = epiphyte.

Entity_and_Attribute_Detail_Citation:

Field Methods for Vegetation Mapping, December 1994, Prepared for: the United States Department of Interior, National Biological Survey (Now the USGS Biological Resources Division) and National Park Service. Prepared By: The Nature Conservancy, and Environmental Systems Research Institute. (<http://biology.usgs.gov/npsveg/fieldmethods/index.html>).

Distribution_Information:

Distributor:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator

Contact_Address:

Address_Type: mailing and physical address

Address: U.S. Geological Survey, Center for Biological Informatics, MS 302, Room 8000, Building 810, Denver Federal Center

City: Denver

State_or_Province: Colorado

Postal_Code: 80225

Country: USA

Contact_Voice_Telephone: (303) 202-4220

Contact_Facsimile_Telephone: (303) 202-4219

USGS-NPS Vegetation Mapping Program
Devils Tower National Monument

Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Resource_Description: DETO Plots data; Physical Descriptive Data and Species Listing Data.

Distribution_Liability:

Although these data have been processed successfully on a computer system at the Biological Resources Division, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. This disclaimer applies both to individual use of the data and aggregate use with other data. It is strongly recommended that these data are directly acquired from a Biological Resources Division server, and not indirectly through other sources which may have changed the data in some way. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The Biological Resources Division shall not be held liable for improper or incorrect use of the data described and/or contained herein.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: HTML

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Network_Resource_Name: <http://biology.usgs.gov/npsveg/deto/fielddata.html>

Fees: none

Metadata_Reference_Information:

Metadata_Date: 20011022

Metadata_Review_Date: 20050518

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator

Contact_Address:

Address_Type: mailing and physical address

Address:

U.S. Geological Survey, Center for Biological Informatics, MS 302,
Room 8000, Building 810, Denver Federal Center

City: Denver

State_or_Province: Colorado

Postal_Code: 80225

Country: USA

Contact_Voice_Telephone: (303) 202-4220

Contact_Facsimile_Telephone: (303) 202-4219

Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:
Biological Data Profile, 1999

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Extensions:

Online_Linkage: <http://biology.usgs.gov/fgdc.bio/bionwext.txt>

Profile_Name: Biological Data Profile FGDC-STD-001.1-1999